IN THE CLAIMS

Please amend claims 13 and 16 and cancel claims 14-15, as follows:

1.   (PREVIOUSLY AMENDED) A method for the automatic configuration of a DSL (Digital Subscriber Line) modem, comprising:

connecting a DSL modem to an analog telephone line;

automatically determining available communication resources on said analog telephone line, wherein said determining step further comprises the step of automatically detecting if a DSL communication circuit exists on said analog telephone line; and

automatically configuring said DSL model based on said available communication resources;

wherein said detecting step further comprises the steps of:

establishing a first connection between a first pair of lines of said analog telephone line and said DSL modem;

ascertaining whether a DSL communication circuit exists on said first connection;

generating a second connection between a second pair of lines of said analog telephone line and said DSL modem;

testing whether a DSL communication circuit exists on said second connection; and

storing results of said ascertaining and testing steps as at least part of said available communication resources.

2.   (CANCELED)

3.   (CANCELED)

4.   (PREVIOUSLY AMENDED) The method for the automatic configuration of a DSL modem according to claim 1, wherein said establishing and generating steps further comprise the step of switching between said first and said second connections using a relay.

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5.   (ORIGINAL) The method for the automatic configuration of a DSL modem according to claim 1, wherein said determining step further comprises the step of automatically identifying a virtual communication route for communications between said DSL modem and a communications network.

6.   (ORIGINAL) The method for the automatic configuration of a DSL modem according to claim 5, wherein said identifying step further comprises the steps of:
       transmitting a plurality of test signals to said communication network;
       receiving a response signal to one of said plurality of test signals from said communication network; and
       storing said response signal as at least part of said available communication resources.

7.   (ORIGINAL) The method for the automatic configuration of a DSL modem according to claim 6, wherein said transmitting step further comprises the step of sending a plurality of test cells to an ATM (Asynchronous Transfer Mode) network, where each test cell contains a different test VPI/VCI (Virtual Path Identifier/Virtual Channel Identifier) pair.

8.   (ORIGINAL) The method for the automatic configuration of a DSL modem according to claim 7, wherein said receiving step further comprises the step of acquiring a single response cell back from said ATM network, where said single response cell contains a single response VPI/VCI pair for communicating with said ATM network.

9.   (ORIGINAL) The method for the automatic configuration of a DSL modem according to claim 8, wherein said method further comprises the step, prior to said acquiring step, of matching said response VPI/VCI pair to a VPI/VCI pair contained within a static list of VPI/VCI pairs, where said static list of VPI/VCI pairs is a list of at least some VPI/VCI pairs that a DSLAM (Digital Subscriber Line Multiplexer) is configured with.

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10.   (ORIGINAL) The method for the automatic configuration of a DSL modem according to claim 8, wherein said acquiring step further comprises retrieving said response cell from a configuration server.

11.   (ORIGINAL) The method for the automatic configuration of a DSL modem according to claim 8, wherein said acquiring step further comprises retrieving said response cell from a host via the internet.

12.   (ORIGINAL) The method for the automatic configuration of a DSL modem according to claim 8, wherein said acquiring step further comprises retrieving said response cell from a DSLAM (Digital Subscriber Line Multiplexer).

13.   (ORIGINAL) An auto-configuring DSL (Digital Subscriber Line) modem, comprising:
     a DSL circuit that communicates data along an analog telephone line;
     a relay for switching a connection between (i) said DSL circuit and a first pair of lines of said analog telephone line, and (ii) said DSL circuit and a second pair of lines of said analog telephone line;
     a memory, comprising:
               instructions for connecting a DSL modem to an analog telephone line;
               instructions for determining available communication resources on said analog telephone line, comprising instructions for automatically detecting if a DSL communication circuit exists on said analog telephone line, including:[[; and]]
                    instructions for establishing a first connection between a first pair of lines of said analog telephone line and said DSL modem;
                    instructions for ascertaining whether a DSL communication circuit exists on said first connection;
                    instructions for generating a second connection between a second pair of lines of said analog telephone line and said DSL modem;
                    instructions for testing whether a DSL communication circuit exists on said second connection; and

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instructions for storing results of said ascertaining and testing steps as at least part of said available communication resources;

        instructions for automatically configuring said DSL modem based on said available communication resources.

    14.   (CANCELED)

    15.   (CANCELED)

    16.   (CURRENTLY AMENDED) The auto-configuring DSL modem according to claim 13 [[15]], wherein said instructions for establishing and generating further comprise instructions for switching said relay between said first and said second connections.

    17.   (ORIGINAL) The auto-configuring DSL modem according to claim 13, wherein said instructions for determining further comprise instructions for automatically identifying a virtual communication route for communications between said DSL modem and a communications network.

    18.   (ORIGINAL) The auto-configuring DSL modem according to claim 17, wherein said instructions for identifying further comprise:

    instructions for transmitting a plurality of test signals to said communication network;

    instructions for receiving a response signal to one of said plurality of test signals from said communication network; and

    instructions for storing said response signal as at least part of said available communication resources.

    19.   (ORIGINAL) The auto-configuring DSL modem according to claim 18, wherein said instructions for transmitting further comprise instructions for sending a plurality of test cells to an ATM (Asynchronous Transfer Mode) network, where each test cell contains a different test VPI/VCI (Virtual Channel Identifier/Virtual Path Identifier) pair.

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20.   (ORIGINAL) The auto-configuring DSL modem according to claim 19, wherein said instructions for receiving further comprise instructions for acquiring a single response cell back from said ATM network, where said single response cell contains a response VPI/VCI pair for communicating with said ATM network.

21.   (ORIGINAL) The auto-configuring DSL modem according to claim 20, wherein said memory further comprises instructions for matching said response VPI/VCI pair to a VPI/VCI pair contained within a static list of VPI/VCI pairs, where said static list of VPI/VCI pairs is a list of at least some VPI/VCI pairs that a DSLAM (Digital Subscriber Line Multiplexer) is configured with.

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